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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,450	07/18/2003	Tsutomu Ohishi	240490US2	1117
22850 7590 01/06/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER TRUONG, LECHI				
ART UNIT 2194		PAPER NUMBER		
NOTIFICATION DATE 01/06/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/621,450

**Applicant(s)**

OHISHI ET AL.

**Examiner**

LECHI TRUONG

**Art Unit**

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 8-15, 19-26 and 30-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-15, 19-26 and 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date 01/12/2008.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-4, 8-15, 19-26, 30-34 are presented for the examination. Claims 5-7, 16-18, 27-29 are canceled.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1, 12, 23, 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Davis(US 6,674,886 B2) and further in view of Coveley et al (US. 6,873,620 B1).

**As to claim 1**, Lee teaches the invention substantially as claimed including: an application (client application, col 2, ln 8-11), a function call (application programming interface, col 2, ln 7-10), an control service (workflow engine, col 2, ln 10-16/server, col 2, ln 60-65), an application for performing processes on image formation and an control service for performing system side processes according to a function call from the application (col 2, ln 10-16), a wrapping part (a Java native Interface wrapper, col 2, ln 10-15), the convert function(native code, col 2, ln 10-16), a wrapping part for converting a function called by the application,

and performing a function call to the control service by using the converted function( col 2, ln 10-16).

Lee does not explicitly teach image, a platform that exists between the application and the hardware resources, the platform including an operating system and at least one control service to control an execution of each requested process of the hardware resources. Hardware resources include at least a printer and a scanner. However, Davis teaches image, a platform that exists between the application and the hardware resources, the platform including an operating system and at least one control service to control an execution of each requested process of the hardware resources. Hardware resources include at least a printer and a scanner (The operating system software typically includes a thousand or more files, including a registry database (detailing the resources available in the system, etc.) and various device drivers (which serve as software interfaces between the CPU and peripheral devices, such as scanner 18 and printer 20), col 1, ln 61-67 and col 2, ln 1-5/ in image processing software applications, in DLLs commonly used with image processing, in printer drivers, in printer firmware, in scanner drivers, in scanner firmware, in modem or other external interface drivers and software, in email software, in FTP software, in the operating system (looking at the clipboard, etc.), etc., etc), col 6, ln 50-60).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee with Davis to incorporate the feature of image, a platform that exists between the application and the hardware resources, the platform including an operating system and at least one control service to control an execution of each requested process of the hardware resources. Hardware resources include at least a printer and a scanner

because this can be utilized by different executables and/or operating system components to provide desired functionality.

Lee and Davis do not teach a virtual application service that is configured to operate as a client process for the service and to operate as a server process for the application, wherein the wrapping part is included in the virtual application service. However, Coveley teaches a virtual application service that is configured to operate as a client process for the service and to operate as a server process for the application, wherein the wrapping part is included in the virtual application service (the communication server includes virtual devices communicating with the communication networks and virtual gateway bridging the virtual networks. The virtual gateway accesses the knowledge base and converts protocols of the messages. Preferably, the virtual gateway includes a preprocessor, a processor and a postprocessor. The preprocessor examines each incoming message to locate target logical connection information determining the target destination for the incoming message. The processor converts the protocol of each incoming message, where appropriate, based on the target logical connection information. The postprocessor wraps each message received from the processor with headers, where appropriate, col 1, ln 59-67/ Fig. 8/ the virtual gateway 284 is better illustrated. Virtual gateway 284 includes a preprocessor 300 receiving input from a virtual device VD (either the virtual host 280 or the virtual terminal 282) that receives logical messages from a sending physical device 14. The preprocessor 300 communicates with the knowledge base 286 and with a processor 302. Processor 302 also communicates with the knowledge base 286 as well as with a postprocessor 304. The postprocessor 304 communicates with the knowledge base 286 and provides output to a

virtual device VD (either the virtual host 280 or the virtual terminal 282). The virtual device VD in turn sends a logical message to a receiving physical device 14, col 7, ln 41-55).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee and Davis with Coveley to incorporate the feature of a virtual application service that is configured to operate as a client process for the service and to operate as a server process for the application, wherein the wrapping part is included in the virtual application service because this provides a novel communication server to enhance communications connectivity in wireless and/or land-line networks and to provide a novel communication system incorporating the same.

**As to claims 12, 23, 34**, they are apparatus claim 1; therefore, they are rejected for the same reason as claim 1 above.

4. **Claims 2, 3, 13, 14, 24, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Davis (US 6,674,886 B2) in view of Coveley et al (US 6,873,620 B1), as applied to claims 1, 12, 23 above, and further in view of Lam et al (US Patent 5,926,636).

**As to claim 2**, Lee, Davis and Coveley do not teach there is a version difference between the function used by the application for the control service and a corresponding function in the control service. However, Lam teaches there is a version difference between the function used by the application for the control service and a corresponding function in the control service (If comparison of the version of the application programming interface in the message buffer with a

version of an application programming interface on the second computer ... if the version are incompatible, col 5, ln 26-33).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Davis and Coveley with Lam to incorporate the feature of a version difference between the function used by the application for the control service and a corresponding function in the control service because this supports different versions of application programming interfaces by remote procedure call modules on client and servers computers.

**As to claim 3**, Lam teaches wherein the wrapping part determines whether there is the version difference by referring to information indicating that a version of the corresponding function in the control service has been changed (col 4, ln 22-27/ col 6, ln 12-20/ col 7, ln 25-31/ col 11, ln 13-20).

**As to claims 13, 14, 24, 25**, they are apparatus claims 2, 3; therefore, they are rejected for the same reasons as claims 2, 3 above.

5. Claims **4, 15, 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047,535 B2) in view of Davis(US 6,674,886 B2), in view of Coveley et al ( US. 6,873,620B1), as applied to claims 1, 12, 23 above, and further in view of Nakamura et al (US. Patent 5,987,529).

**As to claim 4**, Lee, Davis and Coveley do not teach converts the function by adding at least a dummy function or at least an argument if the number of functions or the number of

arguments is different between the function used in the application for the control service and the corresponding function in the control service. However, Nakamura teaches converts the function by adding at least a dummy function or at least an argument if the number of functions or the number of arguments is different between the function used in the application for the control service and the corresponding function in the control service (it is determined whether the code which is the argument of the selector mismatch handler selectorMismatchHandler is equal to newcode (step 260). If the code and newcode are different the code which is the argument of the vmicall instruction is replaced with newcode (step 270). In the previous example, the code was 1. If the newcode assigned in step 240 is 3, vmicall (26,1) is rewritten to vmicall (26,3), col 9, and ln 12-20).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee , Davis and Coveley with Nakamura to incorporate the feature of adding at least a dummy function or at least an argument if the number of functions or the number of arguments is different between the function because this allows the collective recovery processing of inconsistencies can be avoided, the method invoking can be speeded up and memory efficiency can be increased.

**As to claims 15, 26**, they are apparatus claim 4; therefore, they are rejected for the same reason as claim 4 above.

6. Claims **8, 9, 10, 11, 19-22, 30-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 7,047535 B2) in view of Davis(US 6674886 B2), in view of



Coveley et al ( US. 6,873,620B1), as applied to claims 1, 12, 23 above, and further in view of Hamilton et al (US 2003/0177283 A1).

**As to claim 8**, Lee, Davis, Coveley do not teach a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support. However, Hamilton teaches a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support (A server examines the requested version number and compares it against the versions it supports. If the requested version is the range of version supported by the server supported by the server, the acceptance of the version is indicated in a subsequent SessOpenConf message, para [0121], ln 4-10).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Lee, Davis, Coveley with Hamilton to incorporate the feature of a version check part for determining whether a version of a set of functions used by the application is within a predetermined range that the application service can support because this allows an application to monitor a status of other applications connected to the control process of the MSSP.

**As to claim 9**, Hamilton teaches the version check part obtains the version of the set of the functions from the application, and determines whether the version is within the predetermined range by referring to information including the predetermined range (para [0121], ln 4-10/ para [1029], ln 1-10).

**As to claim 10**, Hamilton teaches a version check part for determining, function by function, whether a version of a function used by the application for the virtual application service is within a predetermined range that the virtual application service can support (para [0121], ln 4-10).

**As to claim 11**, Hamilton teaches the version check part obtains the version of the function from the application, and determines whether the version is within the predetermined range by referring to information including the predetermined range (para [0121], ln 4-10).

**As to claims 19, 20, 21, 22, 30-33**, they are apparatus claims 8, 9; therefore, they are rejected for the same reasons as claims 8, 9 above.

#### **Response to the argument**

30. Applicant's arguments filed 11/25/2008 for claims 1-4, 8-15, 19-26, 30-34 have been considered but are not persuasive in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272-3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Li B. Zhen/  
Primary Examiner, Art Unit 2194

LeChi Truong  
January 2, 2009